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June 20, 1960

Dear Sir:

This letter report summarizes the research performed under Task Order No. RR during May, 1960. During this period, the second phase of this program, i.e., incorporation of a suitable blower-motor assembly within the housing of the Model 2 incinerator, was begun.

Preparations for installation of the motor-blower assembly in the lower compartment of the Model 2 incinerator included checking the new blower by connecting it to the original inlet air duct and measuring the pressure versus flow characteristics. Burning experiments were also run with this setup. An average burning rate of 70 lb per hr was obtained in a short cursory experiment and demonstration conducted during your visit on May 19.

The motor-blower unit was subsequently installed within the incinerator after an opening was cut at the rear of the compartment to permit the motor to protrude slightly. Removal of an unused portion of the motor bracket will keep the bulge down to about 2 inches in the radial direction. Large louvers for entry of air will be provided in the bulged cover at the rear of the incinerator. The motor-blower assembly has been mounted on rubber vibration pads and isolated from the plenum chamber by rubber gaskets, to minimize the generation of noise. A layer of sound-absorbing insulation will be placed on the inner walls of the motor-blower compartment.

Because the new blower does not have any reserve pressure for this application, particular attention is being given to the design of the air passages so as to minimize pressure losses and thereby utilize the capacity

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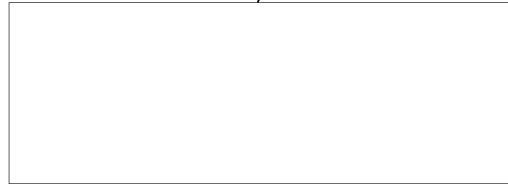
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of the blower as efficiently as possible. The air damper will be installed at the inlet of the blower; this will be controlled by a handle which will swing in front of the door latch, to provide an interlock that will prevent opening of the door while the combustion air is flowing.

During June, it is planned that installation of the motor-blower assembly will be completed and a few burning experiments will then be repeated to evaluate the performance of the integrated unit.

The total appropriation on this Task Order was \$15,338. As of June 1, 1960, the unexpended balance was approximately \$3,300.

Sincerely, /



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ABW:mlm

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